Patent Application USSN 09/588,632

3

IN THE SPECIFICATION

Please amend the paragraph appearing at page 1, lines 2-6, as follows:

RELATED APPLICATION

This application claims the benefit of U.S. Provisional Application Serial No. 60/202,190, entitled Internet Internet Protocol Transport, filed May 5, 2000, which is hereby incorporated by reference.

Please amend the paragraph starting at page 7, line 33 and ending Page 8, line 9:

In the illustrated embodiment, peripheral network elements 20 and 24 comprise routers (R) operable to route connectionless signals, such as Internet Protocol (IP) signals. Routers 20 and 24 facilitate routing functions for signals originated or forwarded by interface equipment 42a-42n and 48a-48n, respectively, and communicated over networks 34 and 38, respectively. Router 20 couples to network 34 via a communication link 52. Similarly, router 24 couples to network 38 via a communication link 56. Interface units 42 and 48 may be, for example, personal computers, servers, switches, routers, or any other network equipment operable to originate and/or forward communication signals to routers 20 and 24 through networks 34 and 38, respectively.

Please amend the paragraph starting at page 15, lines 3-10, as follows:

Error detection information 240 may include various information useful in confirming the integrity of packet payload area 230 after its transport through one or more core network elements 14. In a particular embodiment, error direction information 240 may comprise, for example, Cyclic Redundancy Check (CRC) - 32 information. Other error correction algorithms could be used consistent with the present invention.

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Please amend the paragraph starting at page 15, lines 11-24, as follows:

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FIGURE 3B is a block diagram of exemplary content of transport label 220. In the illustrated embodiment, transport label 220 includes format bits (FMT) 222, a label value 224, quality of service bits (Qos) (Qos) 226, an end of stack (EOS) indicator 228, and time-to-live (TTL) information 229. In this embodiment, format information 222 includes a series of bits indicating the type of signal being transmitted. In this case, format information 222 comprises an index to a look up table 300 (which will be described with reference to FIGURE 4 below). The information in look up table 300 tells the analyzing core network element 14 what type of signal is being transmitted, and may also include procedures for transmitting that signal.

Please amend the paragraph starting at page 21, lines 4-14, as follows:



In this embodiment, the final sub-transport label 220n in the transport label stack 220 carries an index to interface ID look-up table 120. When the egress core network element 14 receives signal 200 and examines the last sub-transport label 220n, it uses the interface ID in label value field 224n 224 to index its interface ID look-up table 122 and identify an interface between the egress core network element 14 and the destination peripheral network element 18-24. Egress core network element 14 then removes transport label 220n from signal 200 and routes the signal to the destination peripheral network element 18-24.

Please amend the paragraph starting at page 21, lines 15-19, as follows:



Packet area 230 contains information as described with respect to FIGURE 3A. In addition, packet area 30 230 of FIGURE 5 includes ingress node ID information 232 and ingress interface ID information 234, which can be used, for example, in various signal control operations.

Please amend the paragraph starting at page 25, lines 14-32, as follows:

The example shown in FIGURE 6C assumes that signal 200c is to be transmitted from an ingress network element 14a to an egress network element 14d, by way of intermediate network elements 14n and 14e, sequentially. In operation, ingress network element 14a consults its node ID look-up table 118 to determine an appropriate hop to network element 14n specified in subtransport label 220a. Network element 14n receives signal 200c and examines format field 222a to determine that label value field 224a is a node ID. Network element 14n compares its node ID to the node ID specified in label value field 224a, and determines a match. Network element 14n then pops the top subtransport label 224a 220a, and examines the next sub-transport label 224b 220b. Network element 14n determines that label value 224b identifies a node ID, and compares its Node ID to that one. Finding no match, network element 14n uses the node ID in label value 224b to index its node ID look-up table 118 and determine a next hop for signal 200c, in this case, core network element 14e.

Please amend the paragraph starting at page 26, line 24 through page 27, line 4, as follows:

Ingress core network element 14b creates, or receives signal 200d with transport label stack 220. In this example, transport label stack 220 includes sub-transport label 220a, which specifies in label value 224a a path identifier associated with signal 200d. Transport label stack 220 also includes sub-transport label label value 224n, which specifies an interface address between egress core network element 14e and label switching router 22. Ingress core network element examines format field 222a of signal 200d, and determines that label value 224a specifies a path ID. Using the MPLS label in label value field 224a to index its path ID look-up table 122, ingress core network element 14b

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establishes virtual circuits and/or virtual paths for communicating signal 200d to egress core network element 14e.

Please amend the paragraph starting at page 27, lines 5-11, as follows:

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Egress core network element 14e receives signal 200d, pops the top subtransport label 224a 220a, and examines sub-transport label 224n 220n to identify the interface linking that core network element 14e and label switching router 22. Core network element 14e restores signal 200d to its original format, and communicates signal 200d to label switching router 22 for further processing.

Please amend the paragraph starting at page 30, lines 16-31, as follows:

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After examining format field 222 of transport label 220 at step 322, core network element 14 may determine at step 334 that label value 224 is an MPLS label containing, for example, a path identifier. In that case, core network element 14 uses label value 224 to access, for example, path ID look-up table 122 to facilitate generation of virtual paths and/or virtual circuits for connection -oriented communication of signal 200. In some cases, label value 224 may comprise a multi-cast label. In those situations, core network element 14 may generate virtual circuits and/or virtual paths for each destination core network element at step 336. Destination core network element 14 receives signal 200 at step 338, and may pop the top sub-transport label 220a-220n-1 at step 340. The destination core network element 14 then examines format field 222 of the next sub-transport label at step 332 322.